

Page 5, line 14, add section heading --DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS-- prior to the start of the paragraph beginning "With reference to the figures listed above . . .".

Add a new Page 23 after the claims, adding the following ABSTRACT OF THE DISCLOSURE. A new, separate Page 23 including the ABSTRACT OF THE DISCLOSURE is enclosed.

--ABSTRACT OF THE DISCLOSURE

A method for processing a rubber mixture or compound for tyre manufacturing includes the steps of determining variation tolerances with respect to reference values for process parameters, detecting values of the process parameters, comparing detected values of the process parameters with the reference values and the variation tolerances, attributing an evaluation to a semi-finished product depending on compliance or noncompliance of the detected values with the reference values and the variation tolerances, classifying the semi-finished product on a basis of the attributed evaluation, and establishing successive steps for processing the semi-finished product depending on the classification of the semi-finished product. The processing includes at least a mixing cycle and an extrusion cycle for obtaining the semi-finished product. The cycles are controlled by the process parameters detected during execution of the cycles.--

IN THE CLAIMS:

Please cancel, without prejudice or disclaimer, claims 2-13, and add new claims 14-26, as follows:

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- 14. (new) A method for processing a rubber mixture or compound for tyre manufacturing, comprising the steps of:
- a) determining variation tolerances with respect to reference values for process parameters;
  - b) detecting values of the process parameters;
  - c) comparing the detected values of the process parameters with the reference values and the variation tolerances;
  - d) attributing an evaluation to a semi-finished product depending on compliance or noncompliance of the detected values with the reference values and the variation tolerances;
  - e) classifying the semi-finished product on a basis of the attributed evaluation; and
  - f) establishing successive steps for processing the semi-finished product depending on the classification of the semi-finished product;
- wherein the processing comprises at least a mixing cycle and an extrusion cycle for obtaining the semi-finished product, and wherein the cycles are controlled by the process parameters detected during execution of the cycles.

15. (new) The method of claim 14, wherein steps b) through f) are performed in an automated manner.

16. (new) The method of claim 14, wherein the process parameters detected comprise one or more of:

duration of at least part of the mixing cycle;

temperature and energy absorbed by the rubber mixture or compound during at least part of the mixing cycle; and

duration of an extraction operation.

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17. (new) The method of claim 16, wherein the mixing cycle is performed with at least one mixer comprising a pair of rotors, and wherein the pair of rotors operate tangentially relative to each other (Banbury®-type) or are inter-penetrating (Intermix®-type).

18. (new) The method of claim 17, wherein coefficients, indicating the compliance or noncompliance of the detected values with the reference values and the variation tolerances, are attributed to the process parameters detected during the mixing cycle, and wherein the evaluation of the semi-finished product is performed by adding together the coefficients attributed and comparing a sum of the coefficients attributed with a reference classification.

19. (new) The method of claim 18, wherein the extraction operation is performed using at least one single-screw or double-screw extruder associated with a pair of calendering rolls.

20. (new) The method of claim 19, wherein the calendering rolls are of a friction type, a variable-speed type, or a friction and variable-speed type.

21. (new) The method of claim 18, wherein the extraction operation is performed using at least one single-screw or double-screw extruder and at least one mixer of an open type.

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22. (new) The method of claim 16, wherein a stay time in an extruder is detected for the extraction operation, and wherein the evaluation of the semi-finished product is performed by comparing the detected stay time with a reference classification.

23. (new) The method of claim 22, wherein the semi-finished product is marked downstream from the extraction operation to enable identification and separation of the semi-finished product from other semi-finished products obtained prior to, subsequent to, or prior to and subsequent to the semi-finished product.

24. (new) The method of claim 23, wherein the processed rubber mixture or compound comprises silica as a reinforcing element.

25. (new) The method of claim 24, wherein ingredients of the compound, per hundred parts-by-weight of polymeric base (phr), comprise:

Polymeric base	100 phr;
Carbon black	0-80 phr;
Silica	10-80 phr;
Bonding agent	4%-15% of the silica;
Zinc oxide (ZnO)	1-3 phr;
Stearic acid	0-3 phr;
Anti-degradation agents	1-3 phr;
Plasticizing oil	0-30 phr;
Anti-ozone wax	0.5-3 phr; and

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